

AN OVERVIEW OF ISOGRAMS

DMITRI A. BORGMANN

Dayton, Washington

From time to time, cryptic references have appeared in the literature of logology to isograms, words or terms consisting of letters each one of which appears "n" times. There has, however, been no general review of the subject since my initial essay on it in Language on Vacation (Scribner's, 1965). The purpose of this article is to update the subject, displaying the present state of research regarding it.

The simplest form of isogram is the nonpattern word, in which each letter used is used once. A 14-letter example cited many years ago in Ripley's "Believe It Or Not" feature is AMBIDEXTROUSLY. However, 14-letter examples are so numerous that they do not attract attention unless they are also transposable. One such transposal is that of HYDROCALUMITES into TRICHLAMYDEOUS. The first word is taken from Chambers's Technical Dictionary, Third Edition Revised, with Supplement, edited by C. F. Tweney and L. E. C. Hughes (Macmillan, 1958), and refers to new minerals consisting of hydrated calcium aluminate occurring in the metamorphic aureoles of the dolerite at Scawt Hill, Antrim. Its transposal is a botanical term defined as "having a three-part perianth or floral envelope", taken from some obscure scientific dictionary the name of which escapes me at the moment. Readers are invited to search for other 14-letter isogram transposals, possibly ones using more common words.

The interest in nonpattern words considered individually begins at the 15-letter level, because of their paucity. Three bona fide examples, all taken from Webster's Second Edition, are DERMATOGLYPHICS (the science of the study of skin patterns), FOLDING BRACKETS (not defined by the dictionary), and WHITE GYRFALCONS (large white falcons). A fourth example, the word ENDOLYMPHATICUS, appears only as part of the two-word term DUCTUS ENDOLYMPHICATUS (a tubular process of the ear). A fifth example, WALPURGISNÄCHTE, is the German plural of the word WALPURGISNACHT labeled in Webster's Second Edition as German, without the plural being shown, and its acceptance as an isogram is contingent on recognition of the letter A-umlaut as distinct from the letter A.

Since 15-letter isograms are so few, attempts have been made to add to their number by coining more of them. The best coined examples are UNCOPYRIGHTABLE, MISCONJUGATEDLY, HYDROPNEUMATICS, and PREDISCOUNTABLY, words of obvious meaning derived from the dictionary words COPYRIGHTABLE, MISCONJUGATED,

HYDROPNEUMATIC, and PREDISCOUNTABLE.

On the 16-letter level, the only reasonably legitimate term is one taken from the Rand McNally 1972 Commercial Atlas and Marketing Guide: SOUTH CAMBRIDGE, N. Y., a town northeast of Troy, in Washington County. The best coined 16-letter words are UNCOPY-RIGHTABLES (items it is impossible to copyright) and SUBENDO-LYMPHATIC (partly within a lymphatic vessel).

Beyond the 16-letter level, imaginations run riot. Thus, one W. C. Countess is quoted, in Games for Insomniacs (Doubleday, 1966) by John G. Fuller, as having devised the following perfectly pangrammatic sentence constituting a credit receipt from an emerging nation:

I. O. U. a Zedfkjhgrbqctswvxypmln

The final word in this message is a 22-letter isogram, of course. I topped this record-setter with a 23-letter example in Language on Vacation, the word PUBVEXINGFJORD-SCHMALTZY, the obvious definition of which is "as if in the manner of a majestic fjord, which sentimentalism is annoying to the clientele of an English inn". Take your pick.

Beyond the nonpattern isograms lie the pair isograms, in which each letter used is used precisely twice. Excluded from admittance to the exclusive coterie of the pair isograms are palindromes such as DETANNATED, tautonyms such as WALLA WALLA (readers will pardon my provincialism in citing the name of a nearby city as a logological example!), and words such as TATTLETALE in which two pairs are identical.

Interest in the pair isograms begins with 10-letter specimens, shorter ones being in too great a supply. Even the 10-letter specimens are sufficiently plentiful to compel us to subdivide them into two groups: (a) those with a random letter distribution, and (b) those with all of the letters involved appearing in the first half of the word, the letters being repeated in some other order for the last half of the word.

(a) ARRAIGNING	RETARDATED	(b) HORSESHOER
CONCISIONS	RIVERVILLE	INTESTINES
INSCIENCES	SUCCASUNNA	POUCE COUPE
MA'AMSELLES	TESSELLATA	SUPERPURES
NOTIONISTS	TOOL STEELS	SWING WINGS
REPROPOSES	TROMOMETER	
REREIGNING		

RIVERVILLE, SUCCASUNNA and POUCE COUPE are names of towns in Amherst County, Virginia, Morris County, New Jersey, and British Columbia, Canada, respectively, taken from the aforementioned atlas. SUCCASUNNA is an Indian name meaning "black stone" (Indian Place-Names in New Jersey by Donald William Becker, published

by Phillips-Campbell Publishing Company, Inc., Cedar Grove, New Jersey, 1964). As Editor Eckler has noted, the translation BLACKSTONE is a nonpattern word of the same length!

The TESSELLATA are an extinct division of crinoids defined in the Funk & Wagnalls unabridged; SWING WINGS are variable-sweep wings, an aircraft term, in the World Book Dictionary. The remaining thirteen words are all from Webster's Second Edition.

Most interesting among the eighteen words in this group is TROMOMETER. It can be transposed into the Spanish word TERMOMETRO ("thermometer"), also a pair isogram, one of the few available examples of interlanguage word play. Actually, this example involves four languages, because TERMOMETRO is also the Italian and the Portuguese equivalent for "thermometer"!

Moving from 10-letter to 12-letter examples of pair isograms is difficult indeed, but the move has been achieved, with eight examples:

- | | | |
|------------------|---------------|------------------|
| (a) CANCELLANSES | INTERINSERTS | (b) TRISECTRICES |
| CICADELLIDAE | SHANGHAININGS | |
| GRADGRINDIAN | TRANSNISTRIA | |
| HAPPENCHANCE | | |

CANCELLANSES is from Webster's Third Edition, TRANSNISTRIA is the name of a Romanian administrative division in the occupied Ukraine, 1941-1943, given in The Columbia Lippincott Gazetteer of the World (Columbia University Press, 1964), edited by Leon E. Seltzer. All remaining words are in Webster's Second Edition.

Of special interest among the 12-letter words just cited is CICADELLIDAE, consisting entirely of letters drawn from the first half of the alphabet

Ineluctable destiny forces us ever onward, to the 14-letter plateau. Much searching has produced only four authentic specimens:

- | | |
|---------------------|--------------------|
| (a) ARE INTEGRATING | (b) TAENIODONTIDAE |
| SCINTILLESCE | |
| UNSUFFICIENCES | |

All four are from Webster's Second Edition. ARE INTEGRATING is a progressive inflectional form of the verb "to integrate", a particularly timely example, as in "We are integrating our schools".

The scarcity of dictionary examples invites coined terms such as COUNTERTROUNCE (to trounce in retaliation for having been trounced), STUMBLEBUMLETS (petty stumblebums), and MIRACLECLAIMER (one who claims to have performed a miracle). You will note that all of these are in the superior (b) category.

Upward and onward! On the 16-letter level, our efforts begin to

come apart at the seams. UNPROSPEROUSNESS is a fine dictionary word, but is marred by the presence of two identical pairs. COUN-TERUNCORSETS (uncorsets in return for being uncorseted) is a coined word, derived from the dictionary adjective UNCORSETED. However, we can maintain a dignified posture by turning to the French language, which provides us with ANTIPERSPIRANTES, the feminine plural of ANTIPERSPIRANT used as an adjective. How about that? And when would a feminine plural form be required, you ask? When modifying a feminine plural noun such as ORDONNANCES ("prescriptions")!

The land beyond the 16-letter level is almost virgin territory, yours for conquest. Ralph Beaman has noted in Word Ways that ANTIANTHROPOMORPHISMS, the plural of a Websterian word, would be a 20-letter pair isogram if only one of the three O's could be dropped. How sad that this is not possible! Recently, he has proposed the excellent 24-letter coinage PSEUDAUTOHERMAPHRODITISM, derived from the Websterian word PSEUDOHERMAPHRODITISM.

One is followed by two, and two is followed by three. The study of trio isograms, for some inexplicable reason, has remained in the embryonic stage. Webster's Second Edition provides two six-letter examples: DEEDED and GEGGEE (the victim of a hoax perpetrated by a Scot). In Language on Vacation, I pointed to the coined word INTRA-TRINITARIAN, which would be a 15-letter trio isogram if one of the four I's in it could be dropped. As in the case of ANTIANTHROPOMORPHISMS, it can't be done. No one has yet taken up the gauntlet I threw down in 1965. The time has come, methinks.

THE IMPOSSIBLE

Would you believe it if we told you that we are about to show you a 7-letter word that (1) can be transposed to spell 14 other 7-letter words, (2) can be spelled in reverse to form the name of a large city in Australia, (3) can be shifted forward 13 spaces along the alphabet to produce the surname of one of Great Britain's prime ministers, (4) possesses two common meanings diametrically opposed to each other, (5) can be mutated into an almost perfect antigram of itself, (6) can be woven into a splendid 26-letter pangrammatic sentence, and (7) is one of a set of four perfect mutual heteronyms?

What's that you say? While you can't believe it, you're foaming at the mouth to see this word? Well, you're 100 per cent right: we simply don't know such a miracle word . . . and if we did, you can bet your bottom dollar that we'd keep it to ourselves. Some secrets are too awful to be revealed!